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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,291	03/10/2004	Sven Antoin Johan Hol	081468-0308639	9376
909	7590	04/12/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			JONES, JUDSON	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/796,291

Applicant(s)

JOHAN HOL ET AL.

Examiner

Judson H. Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-13, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 6-8 and 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/5/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments filed 2/9/2006 have been fully considered but they are not persuasive. Applicant argues that the combination of references '088 and '222 is improper, that that the actuator of reference '222 moves into and out of the page (this appears to refer to figure 2A) and therefore references '088 and '222 are so dissimilar as to make combining features unobvious. However the '088 reference also appears to show an actuator moving in and out of the page in figure 4. See the '088 reference figure 2 which shows a view shifted 90 degrees with the long track of the motor extending left to right with the actuator moving left to right or right to left there. The magnetic elements of the '088 reference that surround the actuator are at the extreme left and right ends of the actuator shown in figure 2, so far to the left and right that they do not appear in the view. Placing such elements at the far ends of applicant's actuator, at the end of travel for the actuator, would not prevent the actuator from moving into and out of the plane of the page. The suggestion for the combination of the references is to prevent flux leakage from an actuator from affecting the rest of the machine, as stated in the rejection of the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9-13, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over European reference 1 286 222 A1 (cited by Applicant) in view of European reference 2003088088 (cited by Applicant). European reference '222 discloses a lithographic apparatus

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having an actuator with a first magnet subassembly 1 and a second magnet subassembly 11 comprising a main magnet system 2, 7, 12, 17 and a subsidiary magnetic system 3, 4, 5, 13, 14, 15 and an electrically conductive element 21a, 21b but does not disclose a magnetic element extending between outer portions of said first and second magnet subassemblies. European reference '088 teaches placing a magnetic element between outer portions of magnet systems in order to prevent the leakage of magnetic flux. Since European reference '088 and European reference '222 are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a magnetic element placed between the outer portions of magnetic systems in order to prevent flux leakage from an actuator causing distortion in a lithographic system.

In regard to claims 2, 10 and 18 see the European reference '222 abstract line 6 "arranged in an Halbach configuration."

In regard to claims 3 and 11 see European reference '088 abstract line 5 "A shield 22 made of a high permeability material."

In regard to claims 4, 5, 12 and 13 see European reference '222 figure 2a.

In regard to claim 18, this method claim is drawn to a method for using the apparatus recited in claims 1 and 9. See claim 15 of European reference '222.

Allowable Subject Matter

Claims 6-8 and 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not disclose or teach a permanent magnet having a polarity in one direction from one magnet subassembly to the other in combination with the other features of claims 6 and 14. The prior art of record does not disclose or teach a distance between a conductive element and a magnetic element large enough to cause a reluctance force to be less than 1% of the maximum force produced by the actuator in combination with the other features of claim 8 and 16.

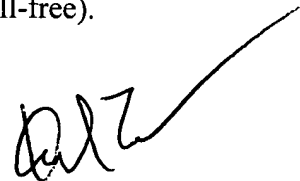
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H. Jones whose telephone number is 571-272-2025. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Judson H. Jones 4/11/2006



KARL TAMAI
PRIMARY EXAMINER